

Issue 2
Winter 2010

KENTUCKY DEPARTMENT FOR NATURAL RESOURCES

NATURAL RESOURCE REVIEW

Photo by DNR staff

OUR MISSION STATEMENT

The department, through its divisions and partnerships, provides technical assistance, education and funding to help landowners, institutions, industries, and communities in conserving and sustaining Kentucky's natural resources. In addition, the department inspects timber harvests and mining operations to ensure the protection of our citizens, our environment, and our workers



Commissioner's Corner

**By Carl E. Campbell, Commissioner
Department for Natural Resources**

Dear Colleagues,

The end of a year is a good time to look back, reflecting on achievements, and to look forward to see what still needs to be accomplished.

In an organization as large and complex as DNR, with over 800 staff working on a wide range of activities in many different parts of the state, it's difficult for everyone to see clearly the entirety of our work. That's too bad, because in fact, what each of you do for the citizens of Kentucky is quite remarkable. While there have been many notable accomplishments by DNR agencies, I want to highlight a few moments during the year where I have been especially proud of what our employees have achieved.

The retirement window of December 2008 presented a number of challenges in hiring and training replacements for the many talented employees who left. This loss of hundreds of years of experience, coupled with a budget shortfall that reduced staffing even further, had a huge impact on the industries we serve and regulate. Employees who remained were required to take up this slack with very limited resources and they did it exceedingly well. We ended the year with a net gain of 78 employees, which should ease the strain as we go forward.

Special attention is warranted for those employees who responded to the many environmental and seasonal emergencies we've experienced this year. You performed magnificently, working in remote or difficult places, and under extreme conditions. During the January 2009 ice storm, the worst in 50 years, the citizens of Kentucky were the recipients of your valuable work during the assessment and cleanup of damages. With over half a million residents and many businesses suffering from power outages, DNR employees worked long hours to mobilize critical assistance and played a major role in the successful outcome.

The heavy rains that fell in the spring of 2009 were events predicted to happen only once every 100 years in Kentucky. They presented serious challenges in the environmental arena, requiring agency personnel to respond to a record number of problems related to erosion runoff in eastern Kentucky. In May alone there were 124 citizen requests for on-site inspections, a substantial increase on the already heavy workload of department employees.

Your focused and highly competent work during this very tumultuous year has resulted in the department ending the year with a significant legacy of achievements. For this you can take a great deal of pride. I have been very impressed with the level of teamwork observed every day from each of you. This positive attitude and cooperation makes our department much more effective and responsive to the needs of our constituents. While 2010 will also have its challenges, I'm confident in your ability and willingness to confront them and achieve success. I want to personally thank each of you for the exceptional work you accomplished in 2009, which provided immeasurable benefits to all Kentuckians.

Carl E. Campbell
Commissioner

Breaking News:

On Dec. 16, 2009, Commissioner Carl E. Campbell signed a Reclamation Advisory Memorandum, [RAM 145](#). The guidelines were issued statewide regarding the Fill Placement Optimization Process, which will result in fewer miles of Kentucky streams being impacted by future coal mining. This process maximizes the amount of mine spoil returned to the mined area while minimizing the amount of mine spoil placed in excess spoil disposal sites such as valley fills. Read the [press release](#). Commissioner Campbell initiated this important project and brought to the table all of the players it would take to reach an agreement. "This is going to dramatically change the way mining is done," said Tom FitzGerald, a Kentucky environmental lawyer who helped broker the deal. Joe Blackburn, director of the Lexington field office of the U.S. Office of Surface Mining, also was involved and said he believes it will lead to better environmental practices nationwide.

Soil and Water Conservation Programs Provided to Landowners of Kentucky

Kentucky's 120 county presence provides leadership in conservation stewardship

The Division of Conservation is working closely with the 121 conservation districts across the Commonwealth to ask for legislative assistance to fund two legislative priorities – an increase of funding for direct aid to districts, and watershed district dam rehabilitation. During the last biennial budget, the funds used for direct aid were cut from \$1,150,000 to \$975,000. As these funds dwindle, it becomes increasingly difficult for local conservation districts to maintain a local office in certain counties. Without these local offices, landowners would not have access to the resources available to address water quality and soil erosion problems.

Additionally, these funds would allow the continuation of technical and administrative assistance to the 2,500 to 3,000 landowners who annually apply to the Soil Erosion and Water Quality Cost Share Program. Each applicant needs help with planning, site design, inspection and approvals for his or her best management practices to protect water quality and natural resources.

Funds are also needed to assist the local watershed conservancy districts with repairing, upgrading or rebuilding 200 existing watershed structures across the Commonwealth. These dams reduce soil erosion and sedimentation, conserve water, prevent property damage, protect and enhance wetland and upland habitat, safeguard rural water supplies and improve water quality.

These benefits have an estimated value of more than \$11.5 million annually. Unfortunately, these dams have become a threat to public safety due to their need for rehabilitation, and downstream development.

The U.S. Department of Agriculture estimates that Kentucky will need \$20 million to repair, upgrade or rebuild these dams. With financial help in the next biennial budget, the Commonwealth would be able to procure 65 percent of the cost in federal funds through a match program.

To help counter the effects of losing these funds, local conservation districts are asking their legislators to increase funding for direct aid to districts and the Division of Conservation to \$1.5 million in each year of the next state budget. They are also asking their legislators to increase funding for dam rehabilitation to \$2.45 million in each year of the next state budget.

A cornerstone of Kentucky's Conservation Program over the past 15 years is the Kentucky Soil Erosion and Water Quality Cost Share Program, which has leveraged local, state and federal funds to implement best management practice to protect the Commonwealth's natural resources. This program is funded from Kentucky Tobacco Settlement Agreement funds and from the Kentucky Department of Agriculture funds. This program was essential in bringing the \$100 million in federal funding to the 14 counties in the Green River Conservation Reserve Enhancement Program.

Division of Forestry Helps Communities and Local Fire Departments

By Lynn Brammer, Kentucky Division of Forestry

Many of Kentucky's communities are expanding and urban development is encroaching on rural landscapes. These areas—known as the wildland-urban interface—are often at risk for wildland fire. In an effort to assist these areas with wildland fire suppression and prevention, grant funding is awarded to various communities and fire departments throughout the state. Funding is provided by the U.S. Department of Agriculture-Forest Service and administered through the Kentucky Division of Forestry (KDF).

This year, \$246,162 was awarded to 74 volunteer fire departments from across the state through the Volunteer Fire Assistance (VFA) grant program. The VFA grant program is designed to increase the capabilities of volunteer fire departments and the grants are typically used to purchase training materials, pumps, hoses, tanks, small fire suppression equipment and personal protective equipment such as Nomex, fire shelters and gloves. The objectives of the VFA grant program include the following:

- 🏠 organize, train, and equip fire departments in unprotected rural areas and rural communities.
- 🏠 assist qualifying fire departments in saving lives and protecting property in unprotected or inadequately protected rural communities.
- 🏠 prevent or reduce loss of life, protect financial investments, and enhance environmental quality to revitalize rural America.
- 🏠 increase the opportunity for rural fire departments to acquire training and current information on fire prevention techniques.

Firewise grants totaling \$243,926 were also awarded this year. Firewise grants are made available through the Firewise Communities program that is designed to decrease the risk of wildfire in fire-prone areas. The funds were distributed to 15 recipients who were selected based on their project submittals. Firewise projects emphasize safe planning and design, effective emergency response and individual responsibility for safer home design. Specifically, the Firewise program includes the following objectives:

- 🏠 provide cost-share funds for fire mitigation and Firewise activities.
- 🏠 foster closer relationships with fire departments and Communities.
- 🏠 educate the public about the benefits of fire mitigation;
- 🏠 reduce the risks of wildfire in wildland/urban interface Areas.
- 🏠 require completion of Community Wildfire Protection Plan.

KDF works with many communities and local fire departments in need of assistance with wildland fire suppression and prevention. As communities grow and wildland-interface areas become more prevalent, the need for prevention and suppression will become even greater. For more information about the Firewise or Volunteer Fire Assistance grant funding and program objectives, contact the division at 1-800-866-0555 or visit www.forestry.kv.gov.

Right: Through the VFA program, a truck was purchased in Bradfordsville, and converted to fight brush fires.
Photo by KDF staff.



Photo by KDF

Did you know?

The KDF will be paying \$33,413.19 to 62 counties this year from the collection of wildfire suppression fees as required in KRS 149.180. KDF, the state agency responsible for suppressing wildfires and enforcing forest fire laws on state and private lands, collects costs associated with firefighting from individuals who are responsible for starting fires by accident or by their negligence.

E-permitting Reaching A New Level Of Acceptance

Professional Engineers realize savings when submitting files electronically

Nov. 19 marked the 10-year anniversary of the e-permitting program in the Division of Mine Permits (DMP). On that date in 1999, Summit Engineering submitted the first electronic application for Sidney Coal Co. Inc. (Permit number 898 -5741 Amendment #3). In 2009, 49 percent of all applications were submitted electronically, a significant increase from the year before. The division is emphasizing the time savings realized, and further encouraging applicants to use electronic submittal in the future.



Photo by J. Hamon



Photo by J. Hamon

Reviewing an Electronic Permit vs. Reviewing a Paper Permit

Electronic versus Paper Statistics

- DMP is keeping the application anywhere from 5percent to 22 percent fewer working days.
- Industry is keeping the application anywhere from 51 percent to 64 percent fewer working days.
- 25percent to 34percent fewer working days between steps in the process (e.g. administratively accepted to technically accepted).

Industry Benefits

- A single copy submitted to central location instead of multiple copies, one of which goes to the field office.
- Submittal prep work is eliminated, saving labor costs and time (participants estimate upwards of a week).
- Reduction in printing costs (i.e. equipment, ink supplies, paper).
- Applicants submit an application from their office as opposed to traveling to Frankfort.
- Electronic payment saves expenses of getting a check processed by DMP.
- Automatic notification of progress saves phone calls to central office.

State Benefits

- More secure documents.
- Recoverable in case of disaster.
- Simultaneous access ensures everyone is looking at the same version of the map or document.
- Access by personnel while away from office. No need to travel to field office to get paper copy.
- Electronic comparison of re-submittals allows for quicker review.
- Instantly filed in the document management system, as opposed to time-consuming manual scans and verification.



Photo by George Renfro

Pictured above: Paper submitted for permitting actions on a single coal permit.

Kentucky's Coal Industry Has Alternate Bonding Resource

Kentucky's bond pool has history of providing bonding for small operators



The Kentucky General Assembly created the Kentucky Bond Pool in 1986. It is an alternative bonding program available to Kentucky's coal industry for meeting the bonding requirements of KRS 350.060(11). The heart of the program is a special Bond Pool Fund into which all members of the pool pay membership and tonnage fees. The initial seed money of \$500,000 came from the Abandoned Mine Land Enhancement Fund created by the 1984 General Assembly. Money for that fund originates from civil penalties collected by the Department for Natural Resources.

In 1988 the General Assembly combined the Abandoned Mine Land Enhancement Fund with the Bond Pool Fund, so both programs are now operated by the same fund. The first \$800,000 of civil penalty collections goes to the General Fund and the excess collections go into the Bond Pool Fund. Participation in the Bond Pool is strictly voluntary and is only available to coal companies that qualify. Qualification is based on mining experience, reclamation record, bond release history and financial standing. Members must continue to meet these qualifications to stay in the program. Preparation plants, tipples and loading facilities are not eligible for coverage under the Bond Pool. The Bond Pool does not cover subsidence, nor does it provide supplemental assurance required for contemporaneous reclamation variances.

A Bond Pool member must post a limited permit-specific bond for each surface mining permit that is obtained from the department. Companies shall not have any permit revocations, bond forfeitures or patterns of violation on record. Applicants must have held permits with the department for at least five of the previous seven years to qualify for either an "A" or "B" rating and three of the last five years to qualify for a "C" rating. Applicants must have an excellent or acceptable compliance record for the previous three years. They must have a healthy financial condition for the previous three years, a good credit record, and a good bond release history with the department.

The Bond Pool Commission is the governing body and key decision maker for the Bond Pool. The commission reviews all applications for membership, determines eligibility, grants and denies memberships, assigns and revises membership ratings and revokes memberships when necessary. It also suspends or reinstates tonnage fees, secures audits and actuarial studies, authorizes expenditures, and provides required reports to the governor.

The commission consists of seven members appointed by the governor. The other members include a large coal operator, a certified public accountant, and the secretary of the Energy and Environment Cabinet. Four members are small coal operators who produce less than 300,000 tons per year, including the chairman and one other member of the Small Coal Operators Advisory Council established at KRS 350.260. A cabinet employee serves as Bond Pool administrator and assists the commission.

Each member must continue to meet the initial eligibility requirements throughout its membership to remain in the program. If a member is issued a cessation order for failure to abate a violation, the commission may revoke the membership. If a member is issued two failure-to-abate cessation orders or is found to have demonstrated a pattern of violations, the commission automatically revokes its membership. Upon revocation of membership, the cabinet will order the member to cease mining on all permits until he obtains alternate bond coverage.

The Bond Pool Fund is governed by the KRS 350.700 through 350.755, and by administrative regulation 405 KAR 10:200. Its purpose is to provide coal companies a low cost bonding mechanism to help defray the cost of mining. Currently the Bond Pool Fund amount is \$22.2 million and is adequate to cover all bond liabilities.

FOR MORE INFORMATION CONTACT:
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Kentucky Department for Natural Resources
2 Hudson Hollow
Frankfort, KY 40601-4321
Telephone: 502-564-2320
E-mail: Corey.Sanders@ky.gov

Morgan County Conservation District Utilizes Environmental Grant for Dead Animal Disposal Program

By Pam Williams, Field Representative, Division Of Conservation

The Morgan County Conservation District and Morgan County Fiscal Court have entered into a partnership this year to implement the county's first dead animal disposal program. The conservation district applied for and was awarded a \$5,000 environmental grant to implement the program.

The Morgan County Conservation District's board of supervisors began discussing the issue of fallen livestock in February. The board determined that without assistance to landowners in the county to properly dispose of fallen animals this could and would eventually become a water quality issue within the county. "Since many tobacco farmers have transformed their idle tobacco fields into pasture fields, adding additional cattle and horses to the farming operations and the many streams and hollows that run throughout Morgan County, this increases potential contaminants from fallen livestock reaching our water sources. We want to do what we can to prevent this from occurring," said Chairman Alden Collins.

However, even with the initial grant money they lacked one vital element, the equipment necessary to complete the program. After much discussion the board agreed that the fiscal court was the obvious choice to assist with the program implementation. A meeting was set up with the county judge-executive to discuss guidelines of the grant funding and the district's program proposal. Judge-Executive Tim Conley said, "We, the fiscal court, have the equipment and the means available to transfer dead animals from the farms for disposal at no cost to farm operators. The disposal program should be a great opportunity for our livestock producers to properly and legally dispose of dead animals."

"I believe that the fiscal court will agree with me on this and partner with the district on this program," Conley said. With that meeting and the concurrence of the fiscal court, the Morgan County dead animal disposal program partnership was developed.

Implementation of the disposal program began Sept. 1, 2009. During the first month, six landowners utilized the disposal program. Clearly farmers in Morgan County are taking advantage of this program to assist them in complying with EPA disposal regulations and the Agriculture Water Quality Act. The Morgan County Conservation District and Morgan County Fiscal Court would like to thank the Kentucky Soil and Water Conservation Commission for their approval of grant funds to implement their disposal program.

Morgan County is able to run this program with equipment and manpower already in place, with minimal additional costs. The carcasses are taken to an EPA-approved landfill in nearby Rowan County. Interested landowners in Morgan County can contact fiscal court to inquire of the fallen animal program at 606-743-3897.



Alden Collins, chairman (L) and Tim Conley, judge-executive (R) agree on dead animal removal program for Morgan County livestock producers. Photo by Pam Williams.

Kentucky Farm Facts:

There are over 45,000 livestock farms in Kentucky. The Kentucky cattle industry is the largest east of the Mississippi River. There are over 1.1 million beef cows in the state. It is estimated that 10,000-15,000 beef cows per year die on the farm and require proper disposal. The Division of Conservation, through its programs and technical assistance, supports all Kentucky farmers.

Abandoned Well Abatement Program Keeps “Plugging Away”

Kentucky Division of Oil and Gas establishes its environmental priorities



To date, the division has plugged more than 3,350 wells. By administering this program, the Division of Oil and Gas remediates abandoned wells at no cost to the citizens of Kentucky.

Left: Abandoned oil well in Daviess County.

Bottom: Abandoned oil well in the Lake Cumberland watershed in Pulaski County.

Photos by Marvin Combs

The Division of Oil and Gas operates a plugging program for orphaned and abandoned wells in the Commonwealth of Kentucky. The division currently has over 11,000 wells listed on the division's Web site that are classified as abandoned. Funding for the plugging program was established in 1990 under KRS 353.590 (5) and is generated from bond forfeitures and fines from violations and noncompliance. Forfeited funds are placed into an interest-bearing account administered by the division specifically for the plugging of any abandoned well in the Commonwealth.

Division inspectors identify abandoned wells and prioritize those wells based on their adverse impact to the environment. Inspectors review well record data and generate a plugging procedure to ensure groundwater, mineable coal seams and other zones of interest are protected and isolated during the plugging process.



State Bidding:

The division generates a master list of abandoned wells each spring and provides a plugging bid package to approved well service contractors that includes individual well bid sheets with the abandoned well information, location and proposed plugging procedure. In addition, the division also generates periodic bid packages of a limited number of wells identified as requiring immediate plugging due to imminent adverse environmental impact and are classified as “emergency bid wells.” All plugging bids are reviewed and awarded on a competitive basis.

Kentucky Mine Mapping System Continues Progress

Online Internet mapping system puts emphasis on prevention of mine-related emergencies

To date, the Kentucky Office of Mine Safety and Licensing (OMSL) has confirmation of more than 32,000 abandoned Kentucky coal mines. Its collection of over 165,000+ mine maps is the largest in the world.

Flooding of active underground works, mine roof instability, impoundment failures and mine blowouts are an ever present concern for the Department for Natural Resources (DNR), miners and communities in these areas. The continued mapping of these underground works is crucial in our efforts to avoid future failures.

The Kentucky Mine Mapping Initiative reached its first milestone, the launch of the Web-accessible Kentucky Mine Mapping Information System in October 2003. The Kentucky mine mapping Web site, <http://minemaps.ky.gov> plays a vital role in mine safety. DNR realizes that the digitized underground mine maps are crucial if we are to minimize the negative impacts of mining on the environment. Kentucky has approximately 64,000 online maps and associated documents available to anyone with an interest in mining, whether they are mining professionals, infrastructure planners or private citizens.

DNR permitting personnel use the maps extensively in cross-referencing proposed impoundment construction/expansion against existing underground works and proposed underground mining operations. Similarly, proposals for expansion of underground mining areas can be readily checked for proximity to existing impoundments.

This enhanced tracking system helps prevent conflicting permit plans, allowing DNR to require plan modification or issue limiting permit conditions to avoid potentially hazardous situations. Permit reviewers also use the underground maps to verify information submitted in permit applications for surface mines. The maps are also valuable for surface mining operations near active or abandoned underground works. Knowing their location should minimize the risk of cutting into these areas and the subsequent flooding or breakthrough that may result.

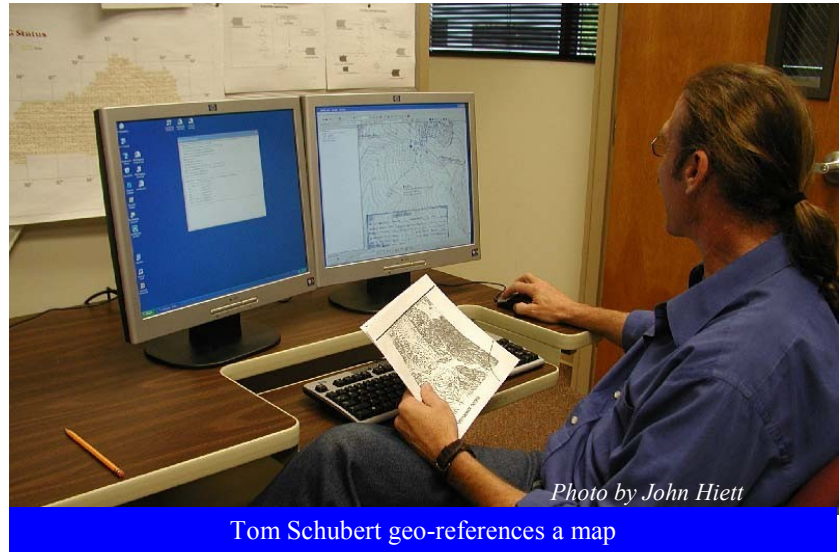


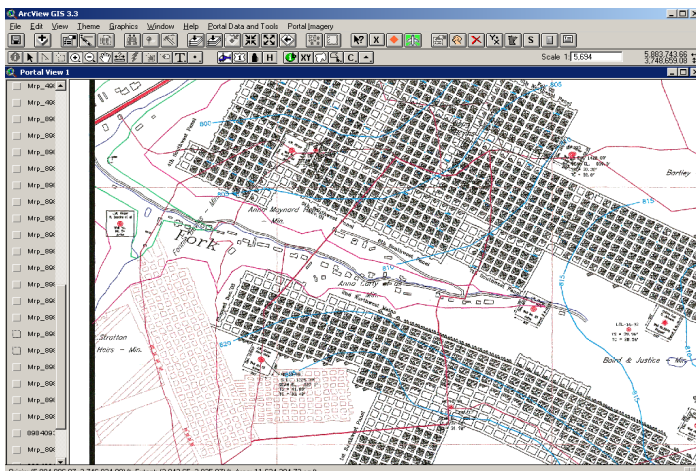
Photo by John Hiatt

Tom Schubert geo-references a map

Oil and gas exploration and production activities and mining operations are occurring in the same geographic regions. To avert potentially dangerous accidents, OMSL began early in 2006 to post daily updates of oil and gas permit data, showing well locations, to the Web site to inform the mining industry of their existence. Conversely, oil and gas producers can quickly identify active or abandoned works, which allows them to plan drilling operations to prevent mine blowouts or other unanticipated accidents. These online tools provide DNR agencies, along with mining and oil and gas companies, a valuable resource that results in better coordination of their activities in the interest of public safety and environmental protection.

Blasting activities pose yet another potential threat. By law, blasting within 500 feet of active or abandoned underground mines requires additional safety measures. The mine mapping Web site provides a means of ascertaining the existence of underground mines in close proximity to blasting operations for the regulatory agencies and the coal industry.

The Kentucky Mine Mapping Initiative continues to be a national leader, not only in scanning and geo-processing coal mining engineering documents, but also in the dissemination of these documents to the general public. The program has become a critical resource for mining and energy companies, insurance providers, land and timber interests, engineering consultants, as well as federal and state regulatory agencies. Additionally, the online system currently allows for quick retrieval of critical information in the event of an emergency. The number of these situations that have been avoided by using the online system is difficult to quantify. However, there is confidence that digitized maps have made a significant impact on public safety and environmental protection in Kentucky. An average of nearly 600,000 Web hits per month indicates significant use of the site. DNR places significant emphasis on prevention rather than reaction to mine-related emergencies. To accomplish this, all underground mine voids must be documented and readily available to regulatory agencies and the public.



Online interactive underground coal mine map

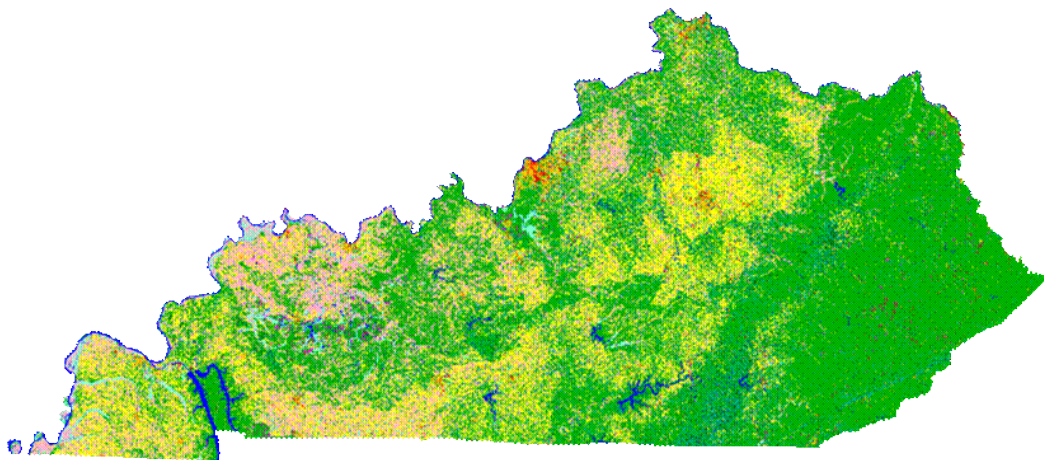
Kentucky Division of Forestry Continues Progress on Statewide Forestland Assessment and Strategies Plan

The Kentucky Division of Forestry began laying groundwork for the Statewide Forestland Assessment and Strategy in early 2009. In an effort to assess the conditions and trends of forest resources, to address threats to our forestlands, and to identify critical areas and regions in Kentucky, the division worked closely with the State Stewardship Coordinating Committee. Several partner agencies, including the Kentucky Department of Fish and Wildlife Resources, the Kentucky Division of Conservation, the Kentucky Division of Water, and the Natural Resources Conservation Service have also been invaluable to the division and to the development of the assessment.

The initial approach to assessing Kentucky's forest resources was to determine the forest issues relevant to our state and to seek public opinion. First, the division reviewed reports and proceedings from forestry-related meetings that had occurred over the past 20 years. From these meetings, the division gleaned 11 common issues that were discussed at all the meetings. The division's second step was to develop an online survey whereby Kentucky citizens could verify that these issues were still valid, add new issues, voice their opinion and rate their concerns. The survey was made available to the public from January to March through the division's Web site and was advertised and promoted to anyone interested in the forest resources of our state. Results from the survey were compiled in April and an assessment team was organized to flesh out the identified issues. Various existing information, including GIS data and findings from the Kentucky Wildlife Action Plan, were also used to help provide critical information and identify conditions and trends.

After acquiring survey results and collecting information through various sources, the division began working with the National Association of State Foresters (NASF) to hire a consultant to compose the final plan. NASF hired Third Rock Consultants Inc., a Lexington-based environmental firm, to work with the division and to write the state forestland assessment and strategy. The division will have the assessment and strategy completed by June 2010.

The top five issues identified in the public survey include forest health, water quality and quantity, forest loss and fragmentation, and funding. Other important issues identified include public awareness, urban and community forestry, unlawful activity (i.e. timber theft and trespass), wildland fire, forest economy, mountaintop removal, public access, prescribed fires and corollary issues. The development of the assessment and strategies has provided the division with various public perspectives and has encouraged interagency communication regarding the status of Kentucky's forestlands. These benefits will serve the division well in planning for the future and in requesting funds for various regional projects.



Kentucky's forests (green) cover 11.97 million acres or 47percent of the state's total land area. The Statewide Forestland Assessment will help determine the threats to this valuable resource and the areas that will be considered high priority.

Environmental Education Center Becomes Pride of KSU

Kentucky Heritage Land Conservation Fund teams with Kentucky State University to purchase land for education center

Kentucky State University's Environmental Education Center in southeastern Henry County holds bragging rights to its 300 acres of protected Kentucky wild lands. The 300 acres that make up the Environmental Education Center will be actively managed with environmentally sound stewardship practices and will give all students of the Commonwealth a place to learn about the environment. The center has had over 5,000 visitors to date. The land and some additional funds for creating trails was purchased utilizing the Kentucky Heritage Land Conservation Fund. The Environmental Education Center will benefit a range of school children in providing field instruction and research opportunities. The center includes a 1.6 acre pond, extensive rough walking trails and sites for anthropology, aquatic sciences, forestry, biology, and science education. *Photos by Tod Porter.*



Division of Forestry Clears Road for Commonwealth Office of Technology After Snow Storm

District Ranger Jeff Smith, Harlan County Rangers John Mink and Bobby Kelly, and Bell County Ranger Lem Johnson assisted with clearing two radio tower roads and transporting a generator to the towers over the weekend before Christmas on Little Black Mountain in Harlan County. The towers had lost power and were the only source of communication between emergency responders from multiple agencies. "The willingness to help others in that rough environment is a testament to their professionalism and dedication to public service," states Deputy Commissioner Larry Arnett. "The pictures are a stark reminder of the difficulties confronted by our employees in their service to the Commonwealth." *Photo by KDF Southeastern District Office.*



Coalfield Residents Appreciate Clean Potable Water

By Mark Meade— Abandoned Mine Lands

When you turn on the faucet to get a drink, take a shower, or wash clothes what do you think about? If you're like most folks, probably not too much. Good water is often taken for granted. However, this is not so in many parts of the coalfields where mining has damaged the ground water supplies that many people depend upon for daily life. Citizens with contaminated wells must buy filtering systems to remove iron and sulfates from their water. Many times this entails purchasing heavy bags of rock salt and filters. Even with filtering, the iron staining is evident in sinks, bathtubs, toilets, and washing machines.

But thanks to the department's Abandoned Mine Lands Program (AML) many of the desperate situations have been alleviated with AML's water replacement program. People are always very appreciative to have a good, reliable water supply that is essential to everyday living. Since 1986 the Kentucky AML has expended over \$80 million to provide municipal drinking water to over 12,000 households in 24 Kentucky coalfield counties.



Above: Iron and sulfates in the well water of this home stain the bathtub in a very short time. Photo by Phillip Bowling

Right: Homeowners attempt to eliminate the minerals from their water supply with filters. Photo by David Bradshaw



DNR Events to Watch for this Quarter:

- Jan. 28-29- Kentucky/Tennessee Chapter of the Society of American Foresters' Annual meeting
- Feb. 3- KY Oil and Gas Association quarterly meeting and legislative reception at Buffalo Trace Distillery
- Feb. 15- Spring Fire Hazard Season Begins in Kentucky
- Feb. 18- Kentucky Agriculture Water Quality Authority meeting— Division of Conservation conference room
- Feb. 18- Kentucky Woodland Owners Association Board meeting
- March 9- Kentucky Association of Conservation Districts Board of Directors meeting-Division of Conservation conference room
- March 15- Kentucky Soil and Water Conservation Commission meeting – Division of Conservation conference room

John Wethington Forest Ranger Technician III, Casey County

John started with the Division of Forestry (KDF) in 1996 as a Casey County ranger. He completed the forest ranger tech II series in 1998 and the forest ranger tech III series in 2000. The forest ranger technician series are promotional steps within the ranger position career ladder that can be obtained through completion of training, seniority and increased responsibilities.

Normal activities for John include inspection of logging sites to ensure adherence to the Kentucky Forest Conservation Act and best management practices (BMPs) implementation. During the annual fire seasons John is responsible for wildfire prevention, volunteer fire department training and fire suppression. Casey County contains approximately 148,000 acres of timberland. KDF operates under the Incident Command System and John is qualified as a division supervisor on in-state mobilizations during high fire occurrences.

John has taken the opportunities to learn more varied and valuable wildland firefighting skills by taking advantage of out-of-state deployment. KDF participates in two types of mobilizations. The first is through the U.S. Forest Service in which an employee takes leave and serves as a contract employee. These trips last 14 days plus travel time. The second is through the compact. The Southern Compact is a group of 13 southern states that have cooperative agreements to assist each other when needed to fight wildfires.

John has made nine western fire trips: 2 two as a sawyer, two as squad boss and five as crew boss through the U.S. Forest Service. John has been to Florida, Texas and North Carolina through the compact and has served as engine boss, strike team leader of engines and dozer bosses.

John utilizes his knowledge and experience by facilitating training opportunities in /out of district, and assisting with training at the Tennessee/Kentucky Fire Academy. His efforts have resulted in trained employees not only in the Division of Forestry, but Kentucky Fish and Wildlife, U.S. Forest Service, National Park Service and Nature Conservancy agencies as well.



Project work for other agencies includes duck pond and food plot construction for Kentucky Fish & Wildlife; establishment of food plots, wildlife watering hole construction and fireline construction for the U.S. Forestry Service-Daniel Boone Forest, and construction of educational trails for local schools.

During the ice storm of 2009, John served as a strike team leader of three to four saw teams, a saw team consists of a sawyer and a swamper. He had one strike team in Boyle County and one in Mercer County. Assisting local officials cutting road ways open was the main function of the teams.

John also assists with forest stewardship projects such as timber stand improvement, timber marking for harvest, property evaluations, data collection and tree sales. He has also been involved in many tree planting operations.

John is supported in his career by his wife Kristina, and daughters Sarah 11, and Anna 9. He is active in his community as a coach of local basketball and fast pitch softball teams. A Sunday school teacher and church superintendent for Middleburg United Methodist Church, John also serves as a member of the local F.F.A. board.

John draws a great amount of satisfaction through his job by being in a position to represent Kentucky and to assist his local communities and neighbors.

Eliminating “Flyrock” Events in Kentucky is a Top Priority for DNR

By Raymond Hudson, Branch Manager, Explosives and Blasting

The Division of Mine Reclamation and Enforcement (DMRE) deals with some pretty scary issues when it comes to environmental and public safety protection. Flyrock tops the list because of its potential to result in death or property damage. DMRE regulates all blasting in the Commonwealth, not just on mine sites, through its Explosives and Blasting (E&B) Branch. What is flyrock? Flyrock is overburden, stone, clay, or other material ejected from the blast area by the force of the blast. Blasting should not eject debris into the air or constitute a hazard or danger to persons or property in the area of the blasting.

The recently restructured E & B Branch has talented and resourceful employees. The ranks are filled with professionals ranging from seasoned veterans with a vast knowledge of regulations and procedures to the newest hires who also possess a wealth of knowledge and understanding about blasting. Combining these individuals into a coordinated and well functioning team promises to produce the best lineup of blasting professionals in Kentucky’s history.

The “High-Risk Studies,” is an ongoing effort to prevent flyrock violations, with committee members currently conducting a study to determine all high risk areas for flyrock. Mine inspection and mine permitting personnel assist in identifying high-risk sites. Members of the coal industry will have the opportunity to invite regulators to their sites in a combined effort to prevent flyrock. Once a site is visited, the branch will conduct an in-depth analysis of the blasting operation, geology, dwellings, mine plans and current procedures. Based on a thorough review of flyrock incidents documented over the past eight to 10 years, the branch will disseminate the findings of this study to the blasting community in an effort to highlight problems encountered by other blasters.

Without a doubt, the most progress in improving blast safety has been made with the Blasting Taskforce. This effort began with DNR Commissioner Carl Campbell issuing a challenge to the coal industry to stop flyrock. A Blasting Summit attended by representatives of the federal Office of Surface Mining (OSM), DNR and the coal industry resulted in the creation of an expanded Blasting Taskforce that includes representatives from every aspect of blasting operations in the Commonwealth.

The members of the E&B Branch are excited and encouraged that both the regulatory community and industry are working together for the good of Kentucky. Real progress is being made towards identifying and controlling flyrock events. *Photos by DNR staff.*



Flyrock that damaged a house in Floyd County.



Flyrock that landed inside a shed in Letcher County.



Even a flyrock that does no property damage is evidence of improper blasting and must be documented as a violation.

Chinese Delegation Visits Office of Mine Safety and Licensing

Through the use of interpreter Cathy Cao from the Economic Development Cabinet, the Office of Mine Safety and Licensing (OMSL) made a presentation to a delegation from China interested in mine safety. The group, comprised of seven government and industry representatives, visited on Jan. 7. Deputy Commissioner Larry Arnett extended a warm welcome to Kentucky, and Executive Director Johnny Greene gave a complete overview of the programs and offices under his direction. The presentation highlighted licensing requirements, safety programs, inspection of mines, and penalties. Harold Slone and Frank Reed, OMSL directors, gave Power Point presentations and answered questions from the visiting group. China is the world's largest producer of coal with over 30,000 mines and an annual production of over 2 billion tons. The group showed a lot of interest in the safety prevention efforts made by OMSL through its safety analyst program, a one-of-a-kind in the U.S.



Top: Harold Slone, director of Safety Inspection and Licensing, gives a presentation to the Chinese delegation summarizing his area of responsibility.



Left: The delegation of government employees and industry representatives from China pose with the Kentucky representatives. *Photos by Evan Satterwhite.*

2010 Annual Wild Game Dinner Touts Large Attendance Despite Weather Woes



There were an estimated 450 attendees at this year's Wild Game Dinner on Jan. 7, co-sponsored by the Kentucky Association of Conservation Districts and the Kentucky Department of Fish and Wildlife Resources. About 3 inches of snow and single-digit temperatures greeted the attendees. The nearly record crowd included legislators, executive branch members, and representatives from conservation district offices statewide. *Photos by DNR Staff.*

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